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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/087,434	03/01/2002	Robert J. Byram	DP-306193	3477

7590 10/06/2003

VINCENT A CICHOSZ  
DELPHI TECHNOLOGIES, INC.  
Legal Staff Mail Code: 480-414-420  
P.O. Box 5052  
Troy, MI 48007-5052

EXAMINER
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MOHANDESI, IRAJ A

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 10/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/087,434	BYRAM, ROBERT J.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Iraj A Mohandesi	2834	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 March 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The drawing does not show any of the stator member being perpendicular to each other nor the specification support this structure ,therefore examiner assumes the stator members are perpendicular to the stator base ( 72 )

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-5,9,10,13,17 and18 are rejected under 35 U.S.C. 102(b) as being anticipated by Haydon US patent 3,495,111.**

**Haydon'111** discloses a four pole (see Fig.3) torque motor comprising; a rotor assembly (Fig.2,3) having a magnetic device (32), a motor core (32) and a motor shaft (34), a stator ( Fig.2) having four stator members ( 14,15,54,55,Fig.3), wherein the stator is disposed so as to be surroundingly associated with the rotor assembly, a single

motor coil (22) wherein the motor coil is disposed so as to be surroundingly associated with the stator (see Fig.2), and a motor housing ( 12 cap member, see Fig.2) having a housing body (52b), wherein the housing body defines a housing cavity for containing the rotor assembly, the stator and the motor coil (see Fig.2), ) the magnetic device is a permanent magnet and charged radially having four alternating poles ( see Fig.3), the stator members are perpendicular to the stator base (52 ),the stator includes a bobbin (24)for disposing the coil wire (Fig.2,3),the housing 52 includes a top plate (12b) and a base plate (52b) and they are associated with non-movably of the housing body , the top plate defines a top plate shaft cavity (the left part of plate12) and the base plate ( the right part of 12,52b) , both parts have cavity to communicate with motor shaft (34) see Fig. 2, a bearing is disposed within the base plate (36,38,Fig.2).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 6,7,8,11,12,14-16,19 and 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Haydon US patent 3,495,111** and in view of **Binder US patent 4,286,187**.

**Haydon'111** discloses a four pole (see Fig.3) torque motor comprising; a rotor assembly (Fig.2,3) having a magnetic device (32), a motor core (32) and a motor shaft (34), a stator ( Fig.2) having four stator members ( 14,15,54,55,Fig.3), wherein the

stator is disposed so as to be surroundingly associated with the rotor assembly, a single motor coil (22) wherein the motor coil is disposed so as to be surroundingly associated with the stator (see Fig.2), and a motor housing ( 12 cap member, see Fig.2) having a housing body (52b), wherein the housing body defines a housing cavity for containing the rotor assembly, the stator and the motor coil (see Fig.2), ) the magnetic device is a permanent magnet and charged radially having four alternating poles ( see Fig.3), the stator members are perpendicular to the stator base (52 ),the stator includes a bobbin (24)for disposing the coil wire (Fig.2,3),the housing 52 includes a top plate (12b) and a base plate (52b) and they are associated with non-movably of the housing body , the top plate defines a top plate shaft cavity (the left part of plate12) and the base plate ( the right part of 12,52b) , both parts have cavity to communicate with motor shaft (34) see Fig. 2, a bearing is disposed within the base plate (36,38,Fig.2).

However **Haydon'111** teaches all limitation of claimed invention except the stator cross-sectional area at the is larger than at the base and both plate top and base plate have receiving notches and protruding edges.

**Binder'187** discloses a rotary machine having claw shape stator with a stator cross-sectional area at the is larger than at the base (the rotor 8, see Fig.2 )and both plate top and base plate have receiving notches (13.2,3 see Fig.1,2) and protruding edges (see two protruding parts on the top plate 12 which extended inwardly for receiving the screw attachment and the two protruding parts on base plate where the arrow 5,6 pointing see Fig.1,2 ).

Therefore it would have been obvious to one having ordinary skill in art at the time the invention was made to combine **Haydon'111** motor with the stator cross-sectional area at the is larger than at the base and both plate top and base plate and having receiving notches and protruding edges as taught by **Binder'187** for the purpose of increasing the magnet surface to increase the magnetic flux and for the purpose of securing two plates together and having protruding part to attach the internal part together via screws.

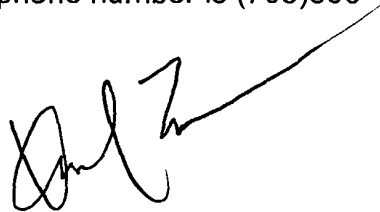
### ***Communication***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Iraj A Mohandesi whose telephone number is (703)305-3242. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on 703-308-1371. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)306-0377.

IM September 17, 2003



KARL TAMAI  
PRIMARY EXAMINER